



HEPATITIS C

Information, advice, testing,
support & training service

Side effects –blood deficiencies

Hemolytic Anemia

Red blood cells carry oxygen to body tissues, providing fuel the body needs to stay alive and healthy. The normal average life span of a red blood cell is about 120 days; after red blood cells have worn out, the spleen removes them from circulation. Hemolytic anemia is to a condition in which red blood cells are destroyed faster than the body can make enough new ones to replace them. Ribavirin can cause hemolytic anemia. It is estimated that up to 22% of patients taking pegylated interferon plus ribavirin experience hemolytic anemia. The likelihood of anemia increases with higher doses of ribavirin.

Symptoms

The most common symptoms of anemia include shortness of breath, fatigue, pale skin, chills, rapid heart rate, depression, and reduced quality of life. If left unchecked, hemolytic anemia can lead to jaundice, dark urine, and an enlarged spleen. In severe cases, it can lead to heart attacks. For this reason, people should have a physical exam to rule out any potential heart problems before starting HCV treatment.

Diagnosis

A simple blood test called a complete blood count (CBC) measures various components of the blood including red cells, white cells, and platelets. Anemia is diagnosed using two tests that measure red blood cells and their oxygen-carrying capacity

Treatment

There are two approaches to treating hemolytic anemia: ribavirin dose reduction and use of a growth factor hormone (erythropoietin) to promote red blood cell production. Ribavirin-induced hemolytic anemia cannot be treated by eating iron rich foods or taking iron or vitamin B12 supplements.

In general, ribavirin dose reduction or the use of red blood cell growth factors are recommended when the hemoglobin level falls dramatically or if there is a significant drop in hemoglobin level over a short period of time. People with heart disease should be monitored very carefully when their hemoglobin level starts to drop.

Ribavirin may have to be discontinued if the drop in hemoglobin level is substantial. Some medical experts believe that ribavirin dose reductions should be avoided, especially during the first 12 weeks of therapy, since an

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adequate ribavirin dose helps prevent relapse and improves the chances of achieving sustained virological response (SVR)

It is important to notify and work closely with your clinical specialist if you notice any symptoms of anemia, in order to ensure that your HCV treatment will be successful as possible.

Neutropenia

The primary function of white blood cells is to fight infection. There are many different types of white blood cells, such as neutrophils, lymphocytes, monocytes, eosinophils, and basophils. Neutropenia is a condition characterized by an abnormally low number of neutrophils. Decreased production or destruction of white blood cells can also cause neutropenia. Some diseases can cause neutropenia, including viral infections, tuberculosis, typhoid fever, and some bone marrow disorders.

Interferon and other medications can also cause neutropenia. Neutropenia is a common side effect of conventional and pegylated interferon with or without ribavirin. Clinical studies have shown that as many as 95% of people on HCV treatment experience some reduction in neutrophil count below the normal range.

People taking pegylated interferon are especially at risk, with about 20% of patients developing significant neutropenia. Technically speaking, interferon boosts the immune system. The vast majority of people who develop interferon-induced neutropenia do not seem to develop any serious infections. However, even though the risk of a serious infection is low, it is still very important that patients be closely monitored to prevent severe neutropenia.

Neutropenia is usually managed by interferon dose reduction according to the specific product labeling found in the drug manufacturers package insert (Roche, Schering Plough). About one-fifth of people treated with pegylated interferon plus ribavirin require dose reduction due to neutropenia. Since dose reduction is usually effective, complete treatment discontinuation is rarely necessary.

Since maintaining the maximum dose of interferon improves the chances of achieving SVR. The decision about how to manage neutropenia is a complicated process that requires expert guidance from a clinical specialist.

Tips for avoiding infection:

- Avoid crowds and sick people
- Get a flu shot and other vaccines to protect against infections
- Practice good hygiene and wash your hands frequently
- Stay away from raw or undercooked eggs, poultry, and shellfish